

**IN THE CLAIMS**

Please rewrite Claims 2 and 8 as set forth in 37 C.F.R. § 1.121(c)(1)(i). A copy of all amended claims showing the additions and deletions in accordance with 37 C.F.R. § 1.121(c)(ii) is attached hereto.

2. (Amended) A furnace for cracking hydrocarbon feed to produce olefins, said furnace comprising:

- (a) at least two fired radiant chamber, wherein each said radiant chamber is divided into at least two separate independent radiant zones by a fired radiant chamber dividing means;
- (b) at least one radiant burner in each said zone of said fired radiant chamber;
- (c) a convection chamber in direct communication with each said fired radiant chamber;
- (d) at least one process coil for each said separate independent radiant zone, wherein each said process coil extends through at least a portion of said convection chamber and extends into one of said separate and independent radiant zones before exiting said furnace;
- (e) a flue for discharging flue gas located at the top of each said convection chamber of said furnace; and
- (f) a means for independently controlling the radiant burners in each said separate independent radiant zone

8. (Amended) A furnace as defined in Claim 1 wherein said means for independently controlling the radiant burners in each said separate independent radiant zone